| Index of | Claims |
|----------|--------|
|          |        |

| Application No. | Applicant(s)   | - |
|-----------------|----------------|---|
| 10/784,054      | LANGHOFF ET AL |   |
| Examiner        | Art Unit       | - |
| John C. Hong    | 3726           |   |

| Rejected | 1 | (Through numeral)<br>Cancelled |
|----------|---|--------------------------------|
| Allowed  | + | Restricted                     |

| N | Non-Elected  | A | Appeal   |
|---|--------------|---|----------|
| ı | Interference | 0 | Objected |

| Cla      | ai <u>m</u> |  |          |              | _ (      | Date     | 9  |              |           |          | CI           | aim      | Date     |           |  |              |          |          | Claim           |          |          |          |            | Date            |             |                    |  |
|----------|-------------|--|----------|--------------|----------|----------|--|--------------|-----------|----------|--------------|----------|----------|-----------|--|--------------|----------|----------|-----------------|----------|----------|----------|------------|-----------------|-------------|--------------------|--|
| Final    |             | N 80/60  |          |              |          |          |  |              |           |          | Final        | Original |          |           |  |              |          |          |                 |          |          | Final    | Original   |                 |             |                    |  |
|          | 1           | V  |          |              |          |          | L.   |              |           | _        |              | 51       | Ш        |           |  | _            |          |          | $\Box$          | $\dashv$ |          |          | 101        | $\Box$          | <u> </u>    | 4—                 | ▙  |
|          | 2           | V  |          |              |          |          |  |              |           | _        | <u> </u>     | 52       | Ш        | _         |  | _            |          |          | Щ               | _        |          |          | 102        | $\dashv$        | -           | ┼                  | ▙  |
| <u></u>  | 3           | V  |          |              | Ш        |          | _  | Ш            | $\sqcup$  | _        | <u> </u>     | 53       | $\sqcup$ | _         |  |              | _        |          |                 | _        |          |          | 103        | $\dashv$        | +           | —                  | ├  |
| <u> </u> | 4           | 0  |          |              |          |          | $\vdash$   | Ш            | $\dashv$  | _        |              | 54       |          | -         |  |              |          |          | Н               | -        |          |          | 104        | $\dashv$        | +           | ┼                  | ├  |
| <u> </u> | 5           | 1  |          |              | $\Box$   |          | _  | Щ            | $\dashv$  | _        |              | 55       | $\vdash$ | _         | _  | -            |          | _        | Н               | -        |          |          | 105        | $\dashv$        | +           | +-                 | ┢  |
| <b> </b> | 6           | <b>!</b>  _                                      |          | _            |          |          | <u> </u>   | $\vdash$     | _         | _        | <u> </u>     | 56       | $\vdash$ |           | -  | $\vdash$     | _        | <u> </u> | $\dashv$        | -        |          |          | 106<br>107 |                 | +           | ┿                  | ├  |
| -        | 7           | -  |          |              |          | _        |  | Н            | $\dashv$  | $\dashv$ | ├            | 57       | $\vdash$ |           |  | $\vdash$     |          | ⊢        |                 | $\dashv$ |          |          | 108        | $\dashv$        |             | +                  | ┢  |
| <u> </u> | 8           | -  |          | -            |          | _        | _  | Н            | $\dashv$  | $\dashv$ | <u> </u>     | 58<br>59 | $\vdash$ |           | -  | Н            | -        | $\vdash$ | $\dashv$        | -        |          |          | 109        | $\dashv$        | <del></del> | +                  | ┢  |
|          | 9           | Ļ  |          |              |          |          | ⊢  | -            | -         | $\dashv$ |              | 60       |          | -         | $\vdash$   | H            | _        | -        | $\vdash$        | $\dashv$ | _        |          | 110        | -               | +           | +                  | <u> </u>   |
|          | 10<br>11    | 0  |          | $\vdash$     | Н        |          | $\vdash$   | Н            | $\dashv$  | $\dashv$ |              | 61       | Н        | -         | Н  | -            | _        | Н        |                 | +        |          |          | 111        | $\dashv$        |             | +                  | ┢  |
| -        | 12          | $\vdash$   | _        | -            | $\vdash$ | $\vdash$ | -  | Н            | $\dashv$  | $\dashv$ |              | 62       | $\vdash$ | $\dashv$  | Н  | -            | -        |          | $\dashv$        | _        | $\dashv$ |          | 112        | +               | +           | +-                 | ✝  |
|          | 13          |  |          |              | -        |          | $\vdash$   | Н            | $\dashv$  | $\dashv$ |              | 63       | H        | $\neg$    |  | $\vdash$     |          |          | $\vdash$        | $\dashv$ |          |          | 113        |                 |             | +                  | $\vdash$   |
| -        | 14          |  | _        | -            |          | $\vdash$ | -  | Н            | $\dashv$  | ᅱ        |              | 64       | Н        |           | Н  | Н            |          |          | $\dashv$        | _        | ⊣        |          | 114        |                 | _           | +                  | $\vdash$   |
| -        | 15          | Н  |          | -            |          |          | -  | Н            | $\dashv$  | $\dashv$ | $\vdash$     | 65       | $\vdash$ |           |  | Н            |          |          | H               | 寸        | $\dashv$ |          | 115        |                 | $\top$      | <del>†</del>       | 1  |
|          | 16          |  |          |              |          |          | Н  | Н            | $\dashv$  | $\dashv$ |              | 66       |          |           |  | П            |          |          | $\Box$          | 寸        | ╗        |          | 116        |                 | $\top$      | $\top$             | Г  |
| $\vdash$ | 17          | H  | _        | $\vdash$     |          |          | $\vdash$   | Н            | $\dashv$  | $\dashv$ |              | 67       | H        |           | П  | П            |          | _        | $\Box$          | $\neg$   | ヿ        |          | 117        |                 | $\neg$      | 十                  | <u> </u>   |
|          | 18          | $\vdash$   |          |              |          |          | H  |              | $\dashv$  | -        |              | 68       |          |           |  |              |          |          |                 |          | 一        |          | 118        | $\Box$          |             |                    |  |
|          | 19          |  |          |              |          |          | <del>                                     </del> |              | $\exists$ |          |              | 69       |          |           |  |              |          |          |                 | ヿ        |          |          | 119        |                 |             |                    |  |
|          | 20          | Г  | _        |              |          |          |  |              | $\Box$    |          |              | 70       |          |           |  |              |          |          | П               | ヿ        |          |          | 120        |                 |             | Т                  |  |
|          | 21          | Г  |          |              |          |          | T  | П            | 一         |          |              | 71       | П        |           |  |              |          |          |                 | $\Box$   |          |          | 121        |                 |             |                    |  |
|          | 22          | _  |          | Г            |          |          | Π  | П            | T         |          |              | 72       |          |           |  |              |          |          |                 |          |          |          | 122        |                 |             |                    |  |
|          | 23          | 1  |          | Г            |          |          |  |              |           |          |              | 73       |          |           |  |              |          |          |                 |          |          |          | 123        |                 |             | $oldsymbol{\perp}$ | 上  |
|          | 24          | Π  |          |              |          |          |  |              |           |          |              | 74       |          |           |  |              |          |          |                 |          |          |          | 124        |                 |             |                    | 上  |
|          | 25          | $\prod$  |          |              |          |          |  |              |           |          |              | 75       | Ш        |           |  |              |          |          |                 |          |          |          | 125        | $\Box$          |             |                    | <u> </u>   |
|          | 26          |  |          |              |          |          |  |              |           |          |              | 76       | Ш        |           |  | Ш            |          |          | Ш               |          |          |          | 126        | $\Box$          |             |                    | Ļ.   |
|          | 27          | Ц  |          |              |          |          | _  |              | $\Box$    | _        |              | 77       |          |           |  |              |          | _        | Ш               |          | _        |          | 127        |                 | $\perp$     | ┷                  | <del> </del>                                     |
|          | 28          | =  |          |              |          |          | L  |              |           | _        |              | 78       | Ш        |           |  |              |          |          | Ш               | _        |          |          | 128        | $\Box$          |             | ╄                  | ╙  |
|          | 29          | L  |          |              |          | <u> </u> | <u>L</u>   |              |           | _        |              | 79       | Ш        | Щ         |  | $oxed{oxed}$ |          |          | Ш               | _        |          |          | 129        | Ш               |             | ┿                  | ╄  |
|          | 30          | L  |          | _            |          | L        | _  | $oxed{oxed}$ | Ц         | _        |              | 80       | Ш        | _         | _  | <u> </u>     | _        |          | Ш               | _        | _        |          | 130        | $\sqcup$        | -           | —                  | ╄  |
| <u> </u> | 31          | L  | _        | _            |          | L        | L.   |              | Ц         | _        |              | 81       | Ш        | Н         | <u> </u>   | Щ            | L.,      |          | Н               | _        |          |          | 131        | $\vdash$        | +           | ₩                  | ╀  |
| <u> </u> | 32          | <u> </u>   |          |              |          | <u> </u> | <u> </u>   | Ш            | Ц         | _        |              | 82       |          |           | _  |              | <u> </u> |          | Н               | _        | $\dashv$ |          | 132        |                 | +           | ┿                  | ⊢  |
|          | 33          | <u></u>  | _        | _            | Щ        | _        | L_   | oxdot        | Ц         | _        |              | 83       |          |           | $\vdash$   |              |          | _        | Н               | _        | 괵        |          | 133        | $\vdash$        | +           | ┿                  | ╀  |
|          | 34          | <u> </u>   | <u> </u> | <u> </u>     | Ш        | <u> </u> | ļ  |              | $\Box$    |          |              | 84       |          | -         | $\vdash$   | L            | ļ.,      | _        | Н               |          | -        |          | 134        | $\vdash$        | +           | +-                 | ⊢  |
|          | 35          | <u> </u>   | _        | <u> </u>     |          | _        | ⊢  |              |           | -        |              | 85       | Н        |           | -  |              | -        |          | Н               | $\dashv$ | $\dashv$ |          | 135        | $\vdash$        | -           | +                  | ╁  |
|          | 36          |  |          | _            | Ш        | <u> </u> | ⊢  | <u> </u>     |           |          |              | 86       | Н        | $\dashv$  | -  | $\vdash$     | _        | ┝        | Н               |          |          |          | 136<br>137 | $\vdash$        | -+          | ╫                  | ⊢  |
| -        | 37          | ⊢  | _        | ⊢            | -        |          | ┢  |              | -         | _        |              | 87       | Н        | _         | $\vdash$   | H            |          |          | Н               | -        | ᅴ        |          | 138        | $\vdash$        | $\dashv$    | +-                 | ╁  |
| -        | 38          | <u> </u>   | _        | _            |          | <u> </u> | <del> </del>                                     | Н            | -         | -        |              | 88       | Н        |           |  | Н            |          |          | Н               | $\dashv$ | $\dashv$ |          | 139        | $\dashv$        | -           | +                  | ╁╾   |
| _        | 39          | ┢  | _        | ├-           | Н        | H        | ⊢  | $\vdash$     | $\dashv$  | $\dashv$ |              | 89<br>90 | Н        | -         |  | Н            | _        | ⊢        | $\vdash$        |          | ᅱ        |          | 140        |                 | +           | +                  | ╁╾   |
|          | 40          |  | <u> </u> | ├            | Н        | —        | ⊢  |              | -         |          | <u> </u>     | 91       | Н        | $\dashv$  | $\vdash$   | $\vdash$     | -        | $\vdash$ | Н               | $\dashv$ | $\dashv$ |          | 141        | $\dashv$        |             | +                  | ╁  |
|          |             | $\vdash$   | -        | ⊢            | -        | ⊢        | ⊢  | -            | -         | -        |              | 92       | Н        |           | $\vdash$   | $\vdash$     |          | ┢        | Н               | -+       |          |          | 142        | $\vdash$        | $-\vdash$   | +                  | ╆  |
| -        | 42          | $\vdash$   | -        | ├            | $\vdash$ | $\vdash$ | $\vdash$   | -            | $\dashv$  | -        |              | 93       | Н        | -         | $\vdash$   | H            | H        | $\vdash$ | $\vdash \dashv$ |          |          |          | 143        | $\vdash$        | +           | +                  | +  |
| -        | 44          |  | -        | $\vdash$     | $\vdash$ | $\vdash$ | $\vdash$   | H            | $\dashv$  | -        | <del> </del> | 94       | $\vdash$ | $\vdash$  | $\vdash$   | H            | Н        | -        | Н               |          | $\dashv$ |          | 144        | $\vdash$        | $\dashv$    | +                  | <del>                                     </del> |
| }        | 45          |  | -        | $\vdash$     | H        | $\vdash$ | ├  | $\vdash$     | $\dashv$  | $\dashv$ |              | 95       | Н        | $\vdash$  | $\vdash$   | H            |          | $\vdash$ | H               | $\dashv$ | $\dashv$ | <u> </u> | 145        | $\vdash \vdash$ | +           | +                  | 1  |
| -        | 46          | $\vdash$   | $\vdash$ | $\vdash$     | $\vdash$ |          | $\vdash$   | $\vdash$     | $\vdash$  |          |              | 96       | Н        | $\dashv$  | $\vdash$   | $\vdash$     |          |          | Н               | $\dashv$ | ᅥ        | _        | 146        | Н               | _           | +                  | $\vdash$   |
| $\vdash$ | 47          | H  | -        | ┢            | -        | $\vdash$ | $\vdash$   | $\vdash$     | -         | $\dashv$ |              | 97       | H        | $\vdash$  | <del>                                     </del> | H            | H        | $\vdash$ | $\vdash \vdash$ |          |          |          | 147        | $\vdash$        | _           | $\top$             | $\top$   |
|          | 48          | $\vdash$   | $\vdash$ | <del> </del> |          | $\vdash$ | $\vdash$   |              | $\vdash$  | -        |              | 98       | Н        | $\dashv$  | Н  | П            | Ι-       | _        | Н               |          | $\neg$   | <u> </u> | 148        | H               | $\dashv$    | $\top$             | $\vdash$   |
| $\vdash$ | 49          | ┢  | -        | $\vdash$     | H        |          | Н  | $\vdash$     | -         | $\dashv$ |              | 99       | H        | $\exists$ |  | П            |          | <u> </u> | Н               | _        | $\neg$   |          | 149        | $\sqcap$        | _           | $\top$             |  |
|          | 50          | <del>                                     </del> | -        | $\vdash$     | Н        | -        |  | Н            | 1         | -        |              | 100      | H        | $\dashv$  | П  | П            |          | Г        | $\vdash$        | 一        |          |          | 150        | П               | _           | $\top$             |  |
|          |             |  |          |              |          |          |  |              |           |          |              |          |          |           |  |              |          |          |                 |          |          |          |            |                 |             |                    |  |